

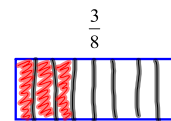
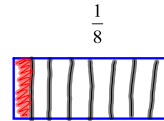
Math 7H - Unit 1a

Day 5a - Adding Rational Numbers (Fractions)

Lesson Objectives:

- I can add positive fractions with like and unlike denominators.
- I can add negative fractions with like and unlike denominators.

Model each fraction.



What is the sum of the two fraction models?

To add fractions with like denominators, add the numerators and write the sum over the same denominator.

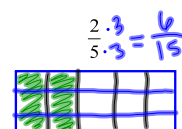
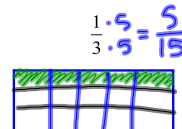
A. $\frac{4}{15} + \frac{6}{15} = \frac{10}{15} = \frac{2}{3}$ B. $\frac{2}{7} + \frac{3}{7} = \frac{5}{7}$

C. $\frac{4}{9} + \frac{5}{9} = \frac{9}{9} = 1$ How is the answer to problem C different from A & B?

D. $\frac{21}{25} + \frac{4}{25} = \frac{25}{25} = 1$ How is the answer to problem D different from A, B, & C?

E. $9\frac{3}{8} + 4\frac{1}{8} = 13\frac{4}{8} = 13\frac{1}{2}$ How is the answer to problem E different from A, B, C, & D?

Model each fraction.



$\frac{5}{15} + \frac{6}{15} = \frac{11}{15}$

Why can't we just add the fractions as they are now?
What must we do to be able to add the fractions?

What is the sum of the two fraction models?

To add fractions with unlike denominators, rename the fractions with a common denominator. Then add and simplify.

A. $\frac{3}{4} + \frac{1}{7}$

B. $\frac{5}{6} + \frac{3}{10}$

$\frac{21}{28} + \frac{4}{28} = \frac{25}{28}$

$\frac{5}{6} + \frac{3}{10} = \frac{25}{30} + \frac{9}{30} = \frac{34}{30} = \frac{17}{15}$

We can also add with NEGATIVE fractions.

A. $-\frac{11}{12} + \frac{9}{12}$ B. $3\frac{7}{8} + \left(-4\frac{5}{8}\right)$ C. $-\frac{13}{15} + \left(-\frac{9}{15}\right)$

$-\frac{11}{12} + \frac{9}{12} = -\frac{2}{12} = -\frac{1}{6}$ $\frac{31}{8} + \frac{-37}{8} = \frac{-6}{8} = -\frac{3}{4}$ $-\frac{13}{15} + \frac{-9}{15} = \frac{-22}{15}$

D. $2\frac{1}{8} + \left(-3\frac{2}{3}\right)$

E. $-1\frac{2}{9} + 2\frac{1}{3}$

$\frac{3 \cdot 17}{3 \cdot 8} + \frac{-11 \cdot 8}{3 \cdot 8}$

$-\frac{11}{9} + \frac{7 \cdot 3}{3 \cdot 3}$

$\frac{51}{24} + \frac{-88}{24}$

$-\frac{11}{9} + \frac{21}{9} = \frac{10}{9}$

$-\frac{37}{24} = -1\frac{13}{24}$

Homework

Adding Fractions WKS

* Individual Think Time *



What to do if you get stuck...

1. Reread the problem. Did you write it down correctly?
2. Reread your notes. Is there a problem similar that we did together in class?
3. Find a problem similar in your book. Try this one to see if it helps.
4. Skip the problem until the end of Individual Think Time. Then ask an "educated" question of a neighbor or Mrs. Call.

Today we're working by...

